

## PATENT ABSTRACTS OF JAPAN

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**(54) DISTILLATION METHOD OF PRODUCT STREAM**

(57)Abstract:

PURPOSE: To separate selected fluorocarbon/HF azeotropes from one another with efficient energy by distilling a product stream containing HCl, HF and fluorocarbons which form close boiling point azeotropes with HF using side- stream rectification.

CONSTITUTION: The product stream, which contains HCl, HF and fluorocarbons which form close boiling point azeotropes with HF, wherein a lighter component of such fluorocarbons is present in an amount of not more than 20 wt.% with respect to a heavier component of fluorocarbons mentioned above, is distilled. The product stream is introduced into a main distillation column to separate into light ends containing HCl and heavy ends containing fluorocarbons and HF. A vapor side stream containing the azeotropes of fluorocarbons with HF is withdrawn from the main distillation column. The vapor side stream mentioned above is introduced into a rectifying column equipped with a condenser and distilled by operating the column with a high reflux ratio such that the lights derived from the rectifying column contain lighter fluorocarbon azeotrope, and the heavy ends are re-introduced into the main distillation column.

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